

Connectionism and the Philosophy of Psychology. By Terence Horgan and John Tienson. MIT Press, Cambridge, MA. (1996). 207 pages. \$35.00.

Contents:

Preface. 1. Introduction and overview. 2. The fundamental assumptions of classical cognitive science. 3. What is wrong with classical cognitive science. 4. Cognitive systems as dynamical systems: A nonclassical framework for cognitive science. 5. Why there still has to be a language of thought, and what that means. 6. Mental causation without rules. 7. Standard-conception laws and soft laws. 8. Soft laws and psychological explanation. 9. Noncomputable dynamical cognition. Notes. References. Index.

Parallel Algorithms for Regular Architectures: Meshes and Pyramids. By Russ Miller and Quentin F. Stout. MIT Press, Cambridge, MA. (1996). 310 pages, \$40.00.

Contents:

List of figures. Preface. 1. Overview. 2. Fundamental mesh algorithms. 3. Mesh algorithms for images and graphs. 4. Mesh algorithms for computational geometry. 5. Tree-like pyramid algorithms. 6. Hybrid pyramid algorithms. Appendices. A. Order notation. B. Recurrence equations. Bibliography.

The Human Semantic Potential: Spatial Language and Constrained Connectionism. By T. Regier. MIT Press, Cambridge, MA. (1996). 220 pages. \$37.50.

Contents:

Series foreword. Foreword (George Lakoff). Acknowledgments. 1. Introduction. 2. The linguistic categorization of space. 3. Connectionism and cognitive models. 4. Learning without explicit negative evidence. 5. Structures. 6. A model of spatial semantics. 7. Extensions. 8. Discussion. Appendix. References. Index.

Location, Scheduling, Design and Integer Programming. By Manfred Padberg and Minendra P. Rijal. Kluwer Academic Publishers, Dordrecht, The Netherlands. (1996). 220 pages. \$95.00, £67.50, Dfl. 175.00.

Contents:

Preface. List of figures. List of tables. 1. Location problems. 2. Scheduling and design problems. 3. Solution approaches. 4. Locally ideal LP-formulations I. 5. Locally ideal LP-formulations II. 6. Quadratic scheduling problems. 7. Quadratic assignment polytopes. 8. Solving small QAPs. Appendix. Fortran programs for small SQPs. References. Index.

Logic-Based 0-1 Constraint Programming. By Peter Barth. Kluwer Academic Publishers, Dordrecht, The Netherlands. (1996). 253 pages. \$98.50, £69.95, Dfl. 185.00.

Contents:

Foreword. Preface. 1. Introduction. 2. Constraint logic programming. 3. Pseudo-Boolean constraints. 4. A logic cut based constraint solver. 5. Pseudo-Boolean unit resolution. 6. Logic cuts and enumeration. 7. Linear pseudo-Boolean inequalities and extended clauses. 8. Simplification. 9. Linearization. 10. Projection. 11. Conclusion. References.

An Introduction to Distributed Algorithms. By Valmir Barbosa. MIT Press, Cambridge, MA. (1996). 365 pages. \$40.00.

Contents:

Preface. Part 1. Fundamentals. 1. Message-passing systems. 2. Intrinsic constraints. 3. Models of computation. 4. Basic algorithms. 5. Basic techniques. Part 2. 6. Stable properties. 7. Graph algorithms. 8. Resource sharing. 9. Program debugging. 10. Simulation. Bibliography. Author index. Subject index.

Cognition and the Visual Arts. By Robert L. Solso. MIT Press, Cambridge, MA. (1994). 294 pages. \$17.50.

Contents:

Series foreword. Preface. 1. The big window: The science of vision. 2. The brain and vision. 3. Figure and form perception. 4. Visual cognition. 5. Context, cognition, and art. 6. The eyes have it: Eye movements and the perception of art. 7. A truly marvelous feast: Visual perspective. 8. Perspective and the history of art. 9. Connections: Canonic representations, memory, and the cognition of art. Notes. References. Illustration credits. Index.

The Six Core Theories of Modern Physics. By Charles Stevens. MIT Press, Cambridge, MA. (1995). 233 pages. \$12.50.

Contents:

Preface. Notational conventions. 1. Mathematics. 2. Classical mechanics. 3. Electricity and magnetism. 4. Quantum mechanics. 5. Statistical physics. 6. Special relativity. 7. Quantum field theory. Additional reading. Symbol index. Equation index. Subject index.